Fenestra

STEEL WINDOWALLS

Manufactured by the

DETROIT STEEL PRODUCTS CO.

2250 East Grand Boulevard Detroit, Michigan

INDEX

Head Details

No. 1 - - - - - Concrete
No. 4 - - - - - Brick
No. 10 - - - - Steel

Jamb Details

No. 2 - - - - - Concrete (multiple units)
No. 2-A - - - - Concrete (single unit)
No. 5 - - - - - Brick (multiple units)
No. 5-A - - - - Brick (single unit)
No. 11 - - - - Steel (single & multiple units)

Sill Details

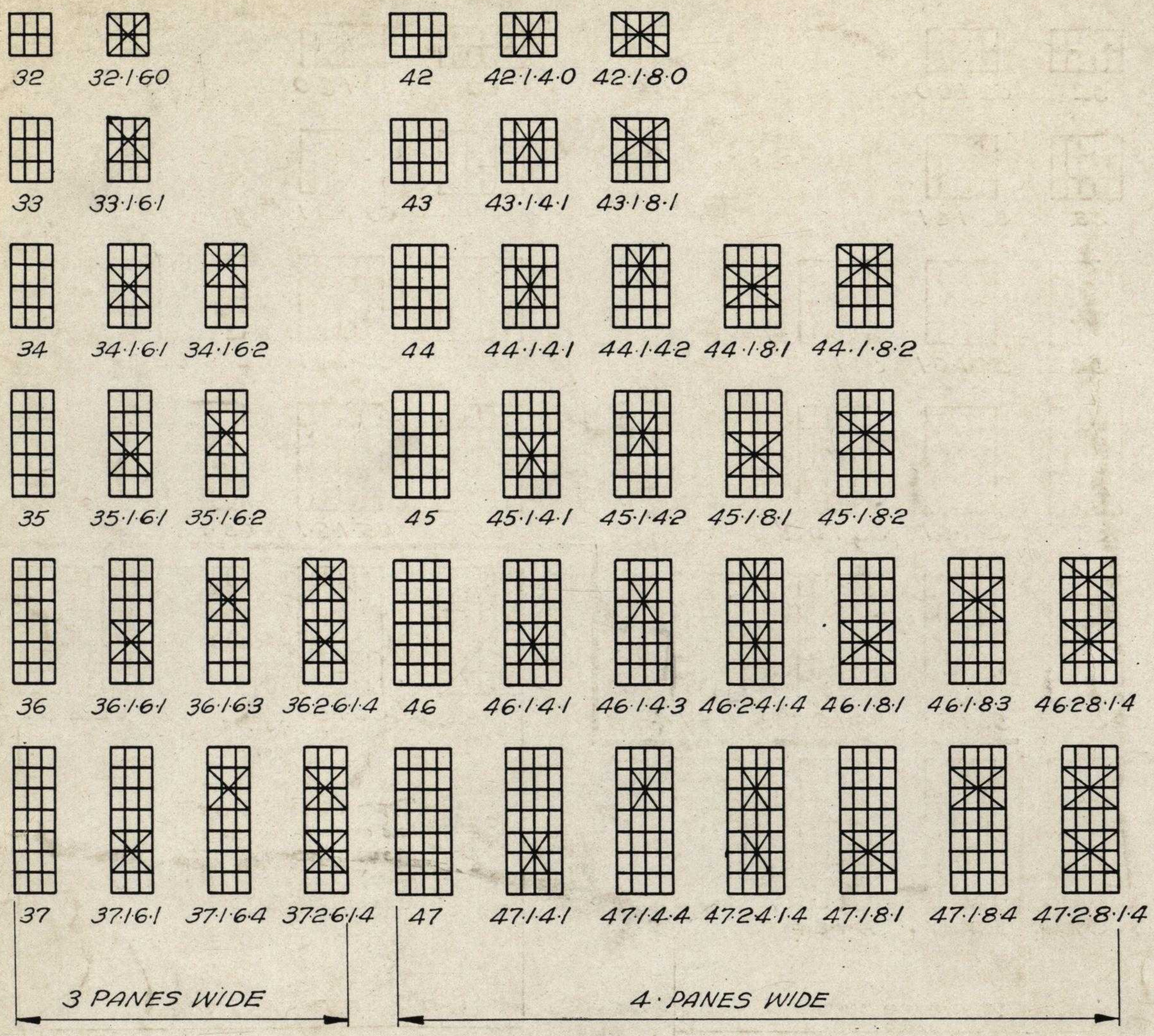
No. 3-A - - - - Concrete
No. 6-A - - - - Brick (stone sill)
No. 12-A - - - - Steel (channel, angle, etc.)
No. 12-B - - - - Steel (angle)

Mullion Details

No. 37 - - - - (Turned out)
No. 37-A - - - - (Turned in)
No. 37-B - - - - (Double)
No. 40 - - - - Horizontal Structural Steel

Openings

Detail of approved opening for concrete and brick construction.



Dimensions

Always combine Y heights with Y widths and Z heights with Z widths

No. Lights High	Height of Each Light in Inches	
	Y—18″	Z—20″
2	3′ 1⅝″	3′ 5⅝″
3	4′ 8″	5′ 2″
4	6′ 2⅜″	6′ 10⅜″
5	7′ 8¾″	8′ 6¾″
6	9′ 3⅛″	10′ 3⅛″
7	10′ 9½″	11′ 11½″

No. Lights Wide	Width of Each Light in Inches	
	Y—12″	Z—14″
3	3′ 2″	3′ 8″
4	4′ 2⅜″	4′ 10⅜″
5	5′ 2¾″	6′ 0¾″
6	6′ 3⅛″	7′ 3⅛″

NOTE—The number appearing under each sash indicates the type. The letter Y stands for 12″ x 18″ glass size. Z stands for 14″ x 20″ glass size.

To designate a particular sash prefix the desired letter to the type number thus, Y-57-1-6-1.

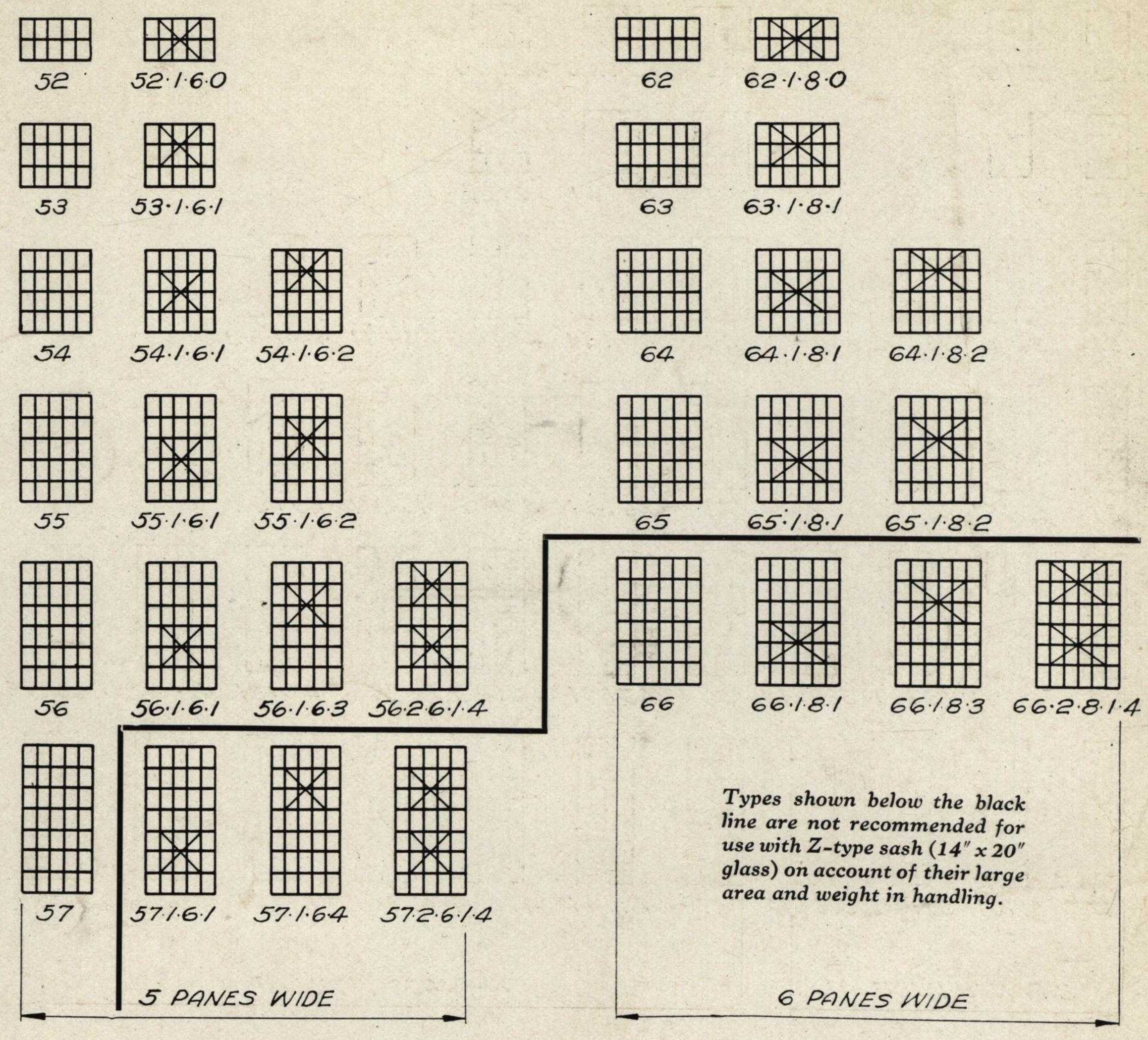
DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Types of Fenestra Standard Sash

Other types shown on opposite side of this sheet.

Revised 6-21-20



Types shown below the black line are not recommended for use with Z-type sash (14" x 20" glass) on account of their large area and weight in handling.

Dimensions

Always combine Y heights with Y widths and Z heights with Z widths

No. Lights High	Height of Each Light in Inches	
	Y—18"	Z—20"
2	3' 1⅝"	3' 5⅝"
3	4' 8"	5' 2"
4	6' 2⅜"	6' 10⅜"
5	7' 8¾"	8' 6¾"
6	9' 3⅛"	10' 3⅛"
7	10' 9½"	11' 11½"

No. Lights Wide	Width of Each Light in Inches	
	Y—12"	Z—14"
3	3' 2"	3' 8"
4	4' 2⅜"	4' 10⅜"
5	5' 2¾"	6' 0¾"
6	6' 3⅛"	7' 3⅛"

NOTE—The number appearing under each sash indicates the type. The letter Y stands for 12" x 18" glass size. Z stands for 14" x 20" glass size.

To designate a particular sash prefix the desired letter to the type number thus, Y-57-1-6-1.

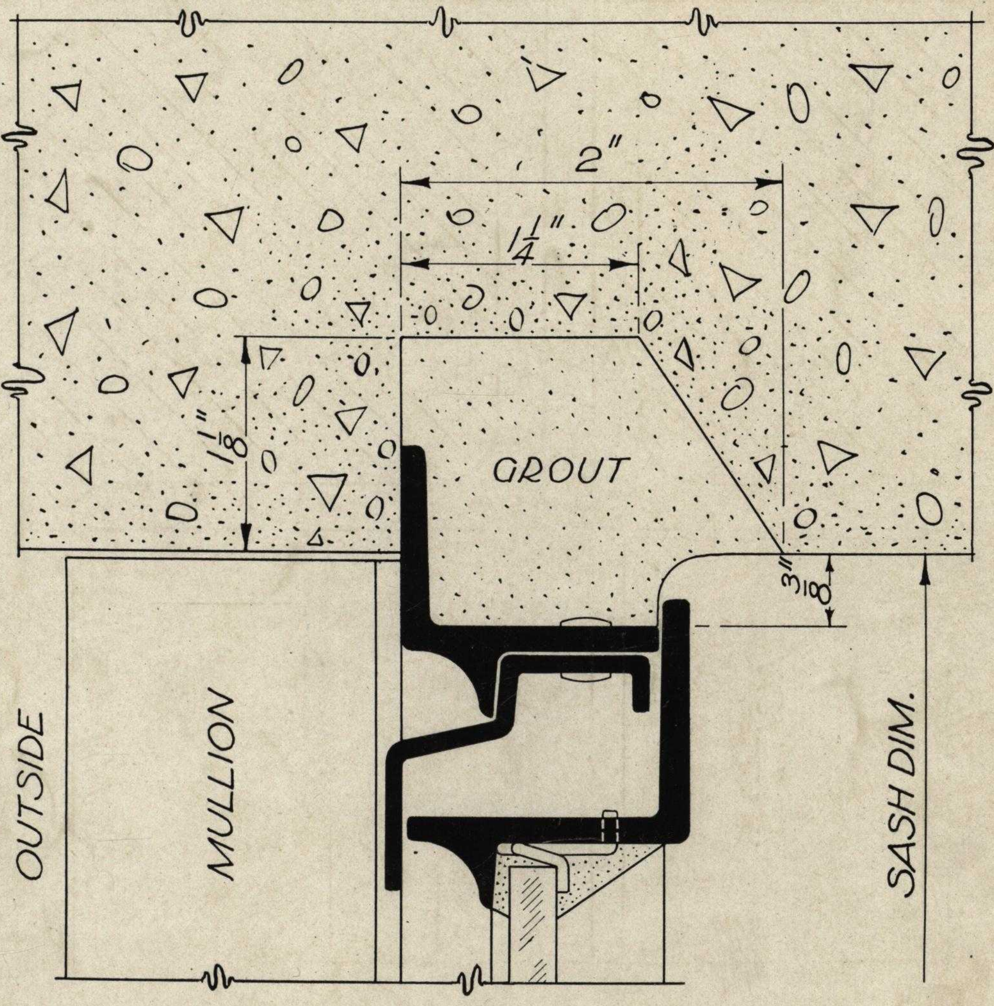
DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Types of Fenestra Standard Sash

Other types shown on opposite side of this sheet.

Revised 6-21-20



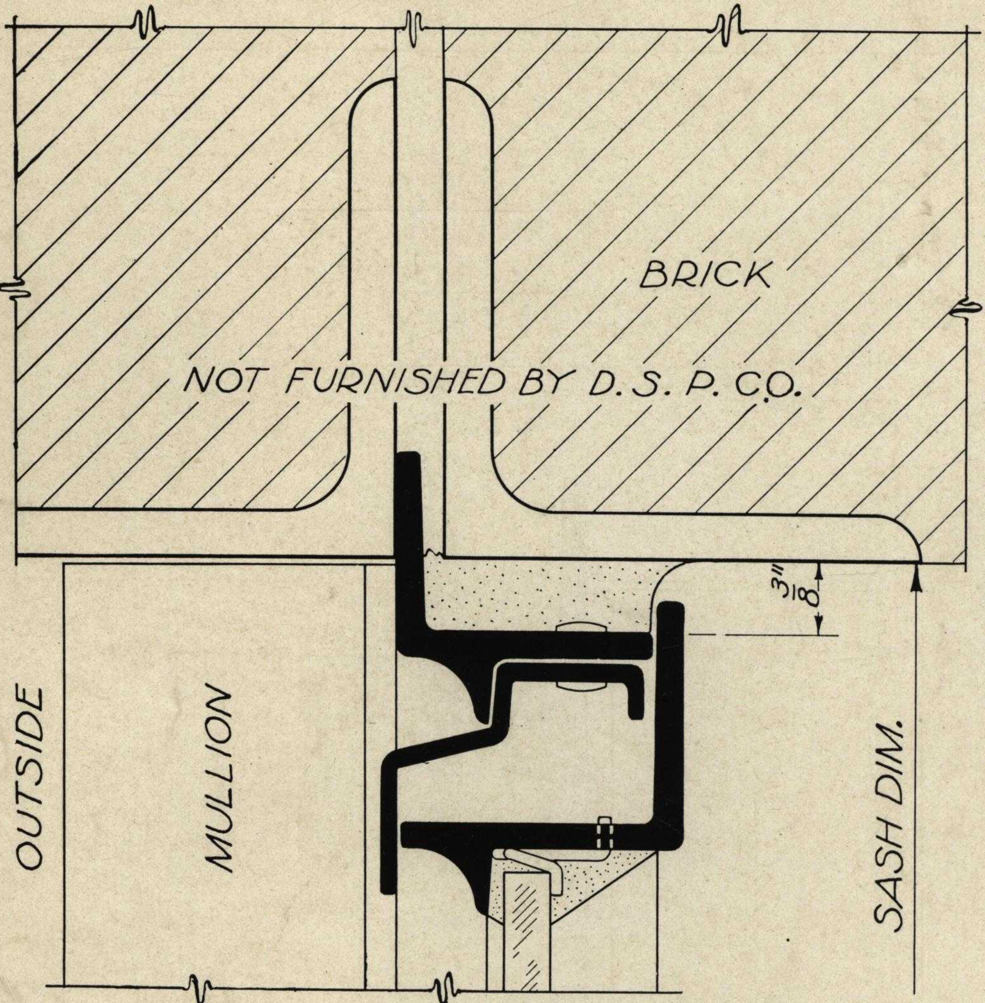
NOTE—*Refer to sketch showing prepared openings.*

DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Head Detail No. 1

Installation in concrete, showing grout pointing.



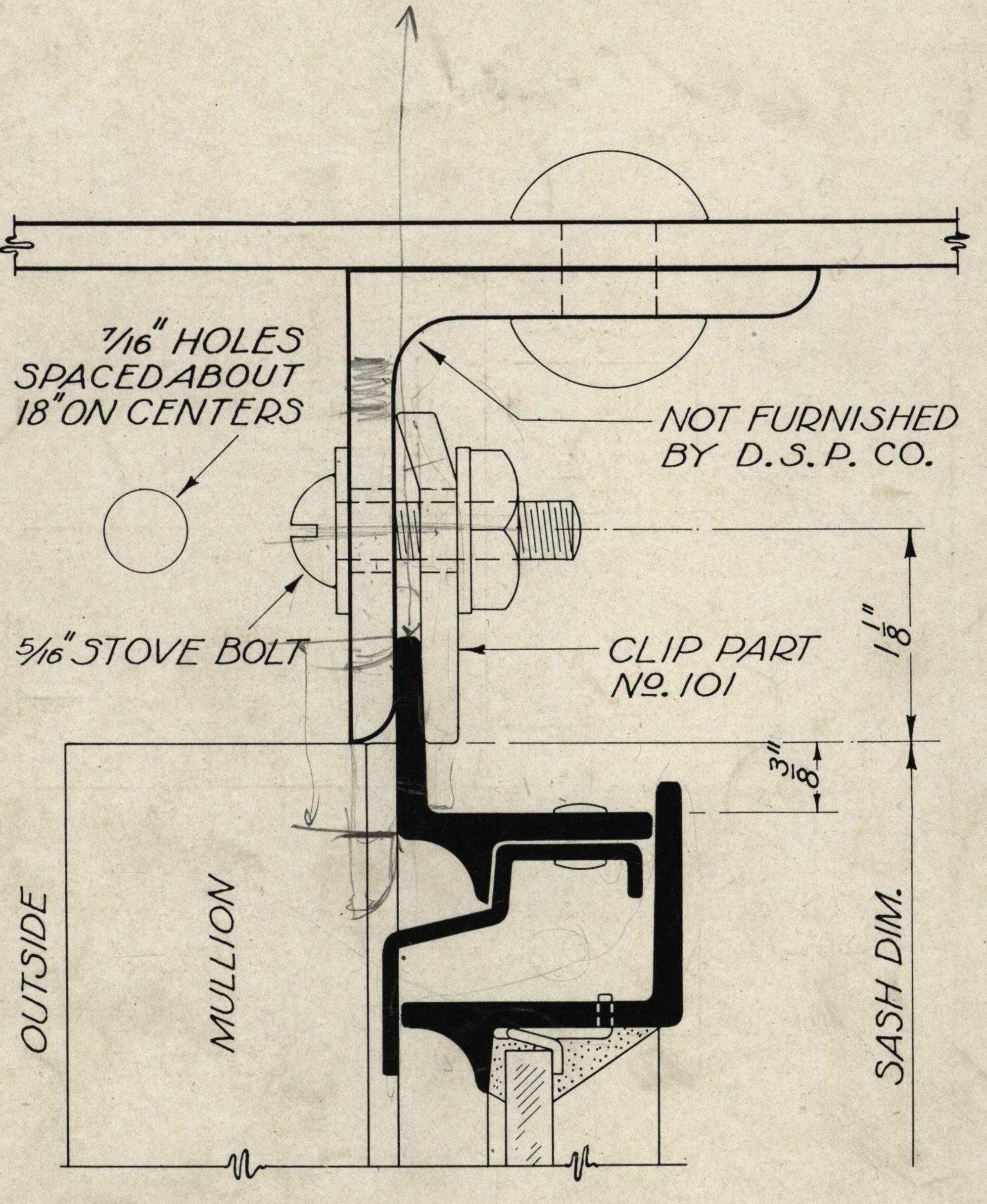
NOTE—*Refer to sketch showing prepared openings.*

DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Head Detail No. 4

Installation in brick, showing steel supporting angles.

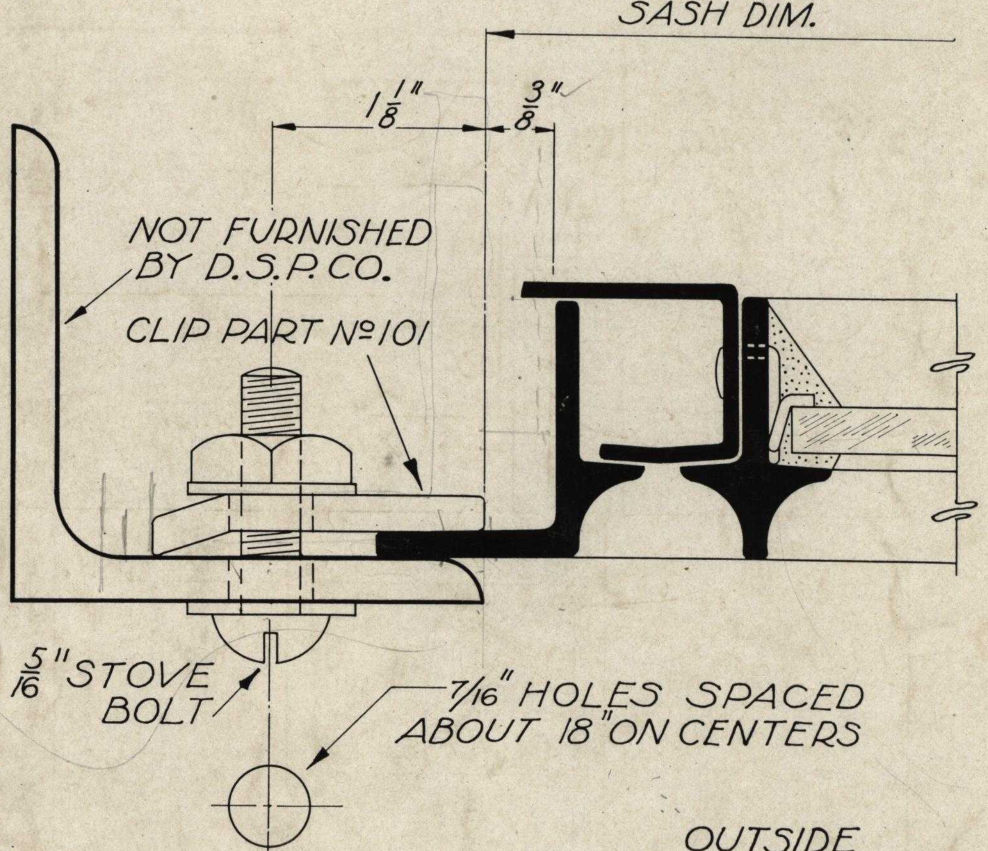


DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Head Detail No. 10

Installation in steel, showing use of sash attachment, Clip No. 101.

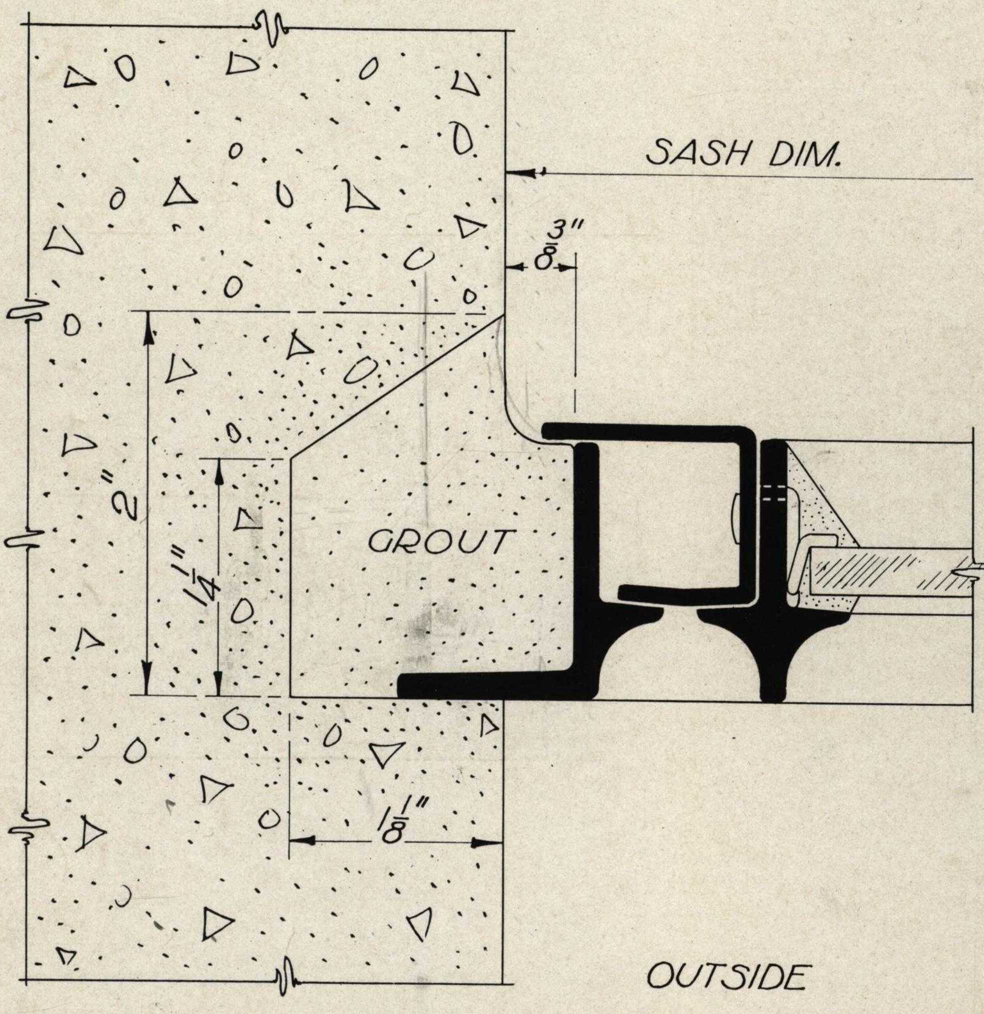

SASH DIM.
$1\frac{1}{8}''$
$\frac{3}{8}''$
NOT FURNISHED BY D.S.P. CO.
CLIP PART №101
$\frac{5}{16}''$ STOVE BOLT
7/16" HOLES SPACED ABOUT 18" ON CENTERS
OUTSIDE

DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Jamb Detail No. 11

Installation with steel angle, showing use of sash attachment, Clip No. 101.



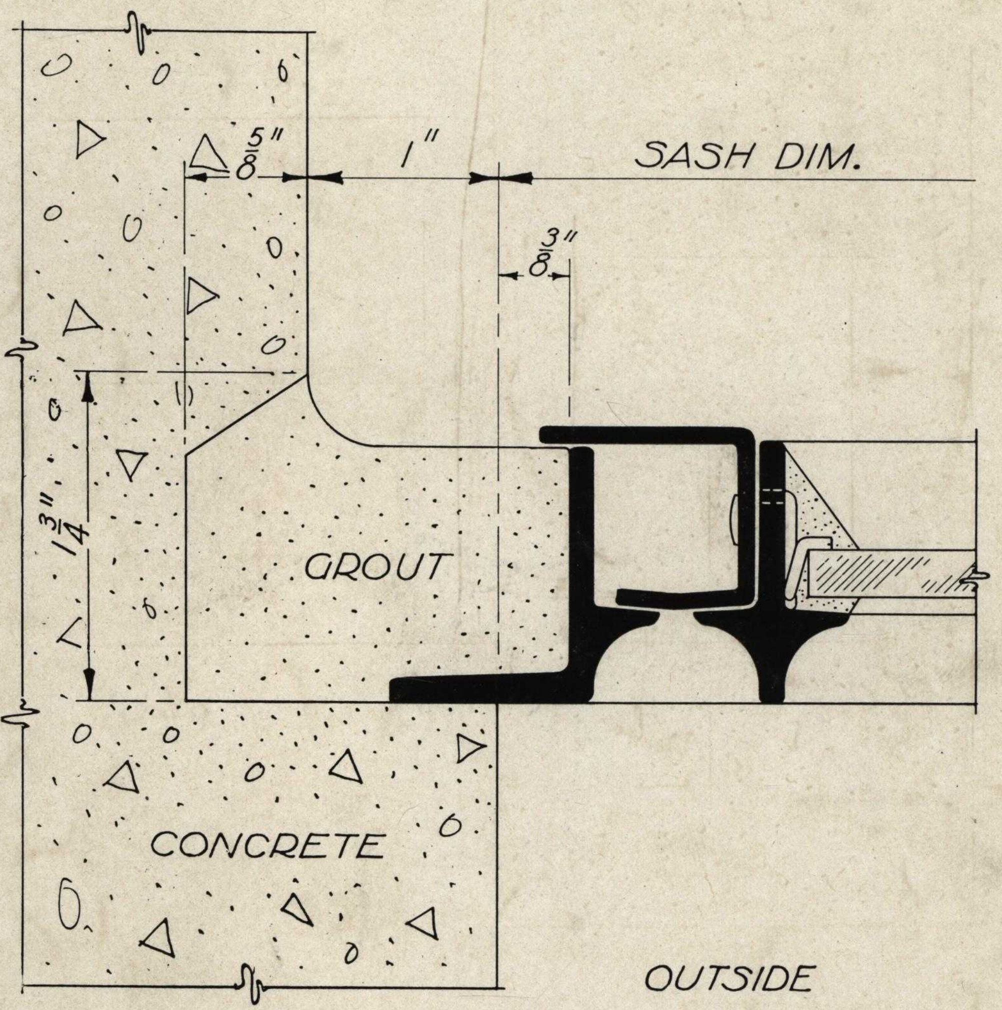
NOTE—*This detail is used where more than one sash unit occupies a concrete opening. Detail for single units shown on opposite side of this sheet. Also refer to sketch showing prepared openings.*

DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Jamb Detail No. 2

Installation in concrete, showing grout pointing.



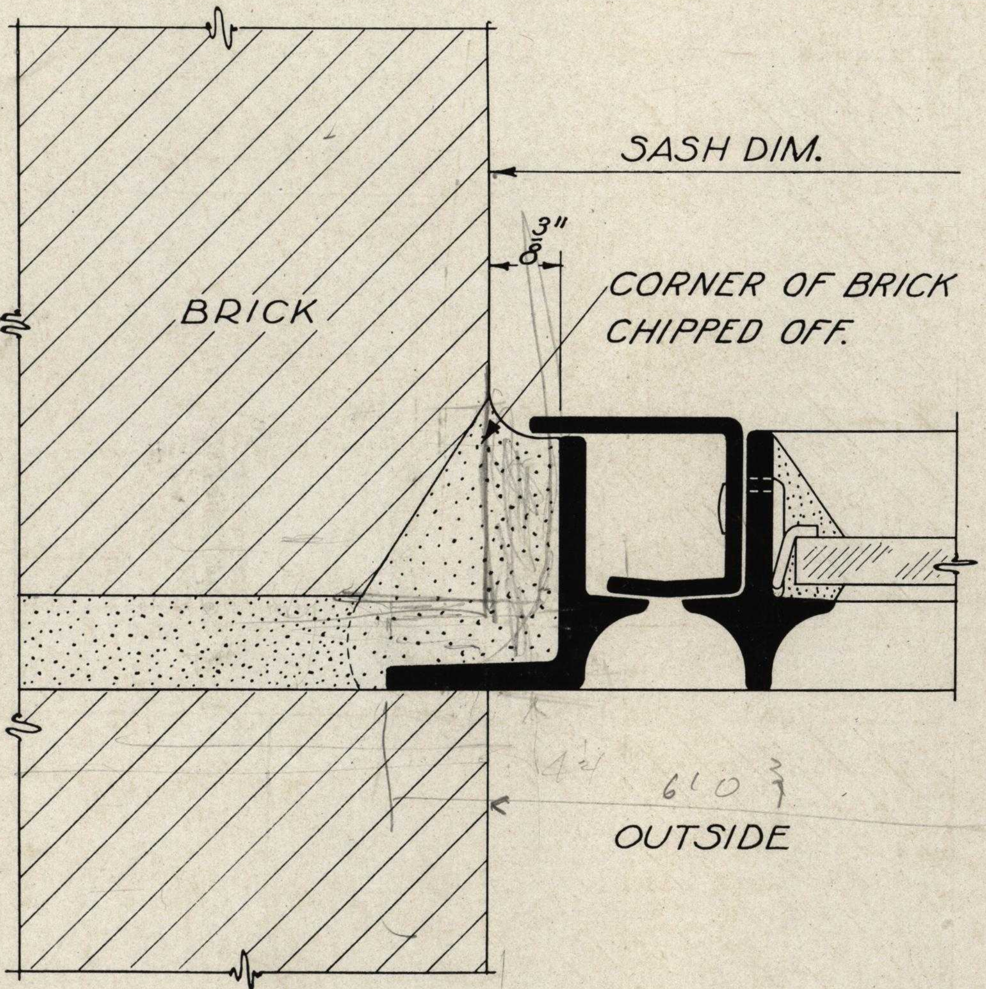
NOTE—*Refer to sketch showing prepared openings.*

DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Jamb Detail No. 2-A

Installation in concrete, showing treatment of prepared opening particularly adapted for single units.



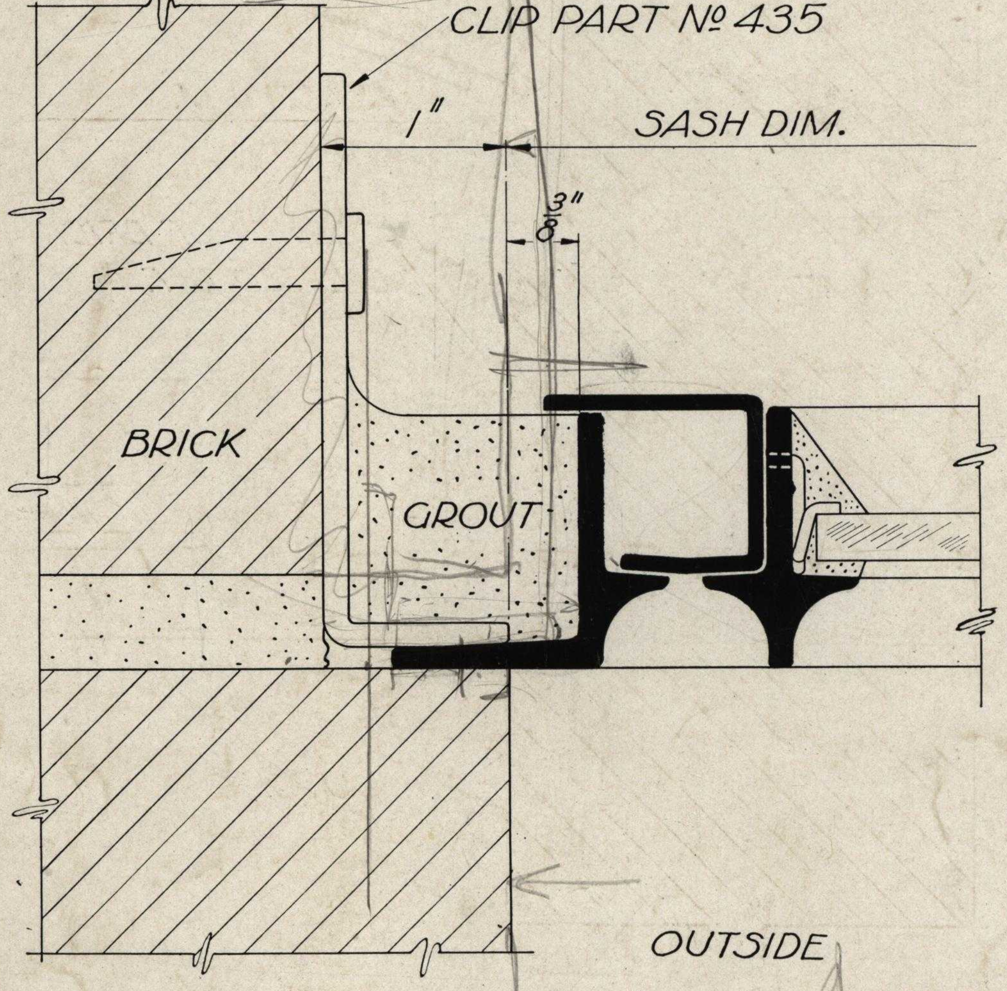
***NOTE**—This detail is used where more than one sash unit occupies a brick opening. Detail for single units (No. 5-A) on opposite side of this sheet.*

DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Jamb Detail No. 5

Installation in brick, showing pointing. Corner of brick chipped off.



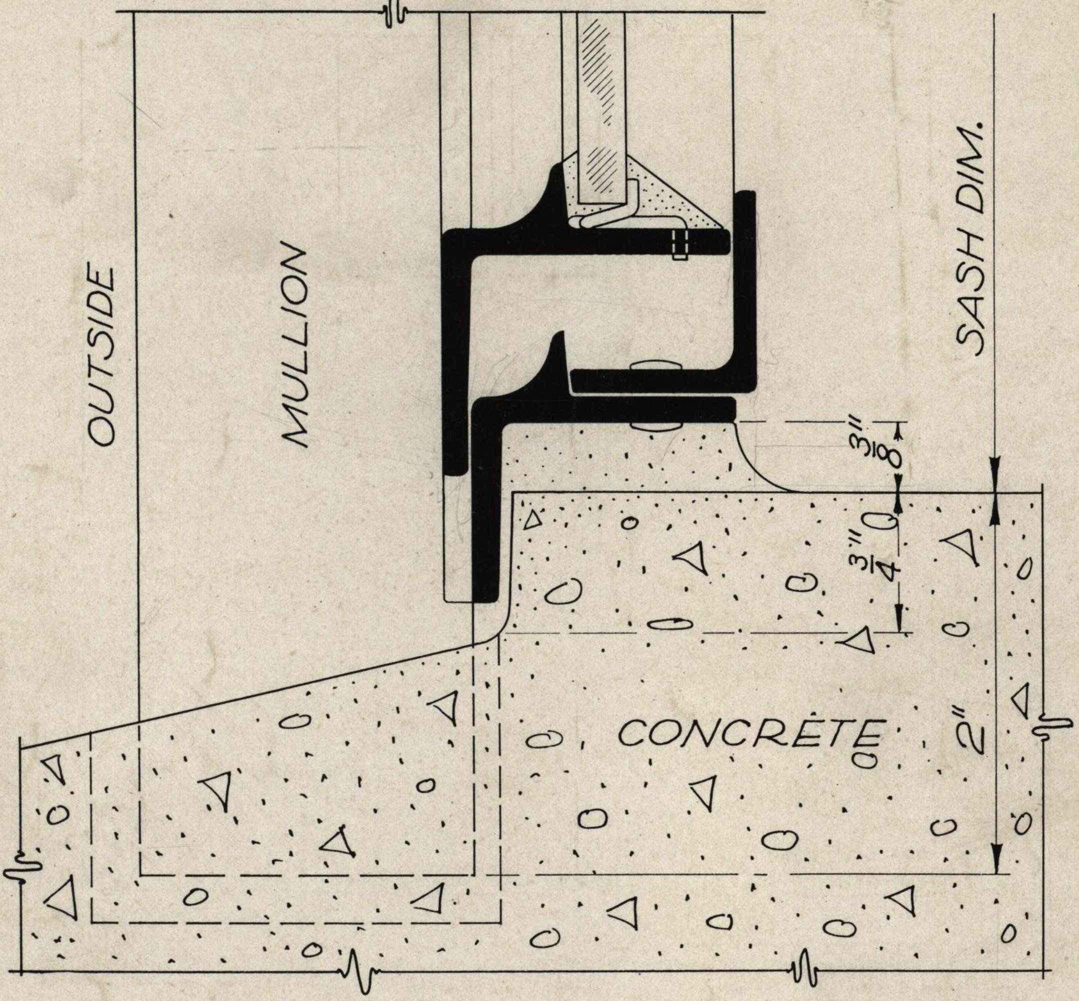
NOTE—*Refer to sketch showing prepared openings.*

DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Jamb Detail No. 5-A

Installation in brick, showing treatment of opening particularly adapted for single units.



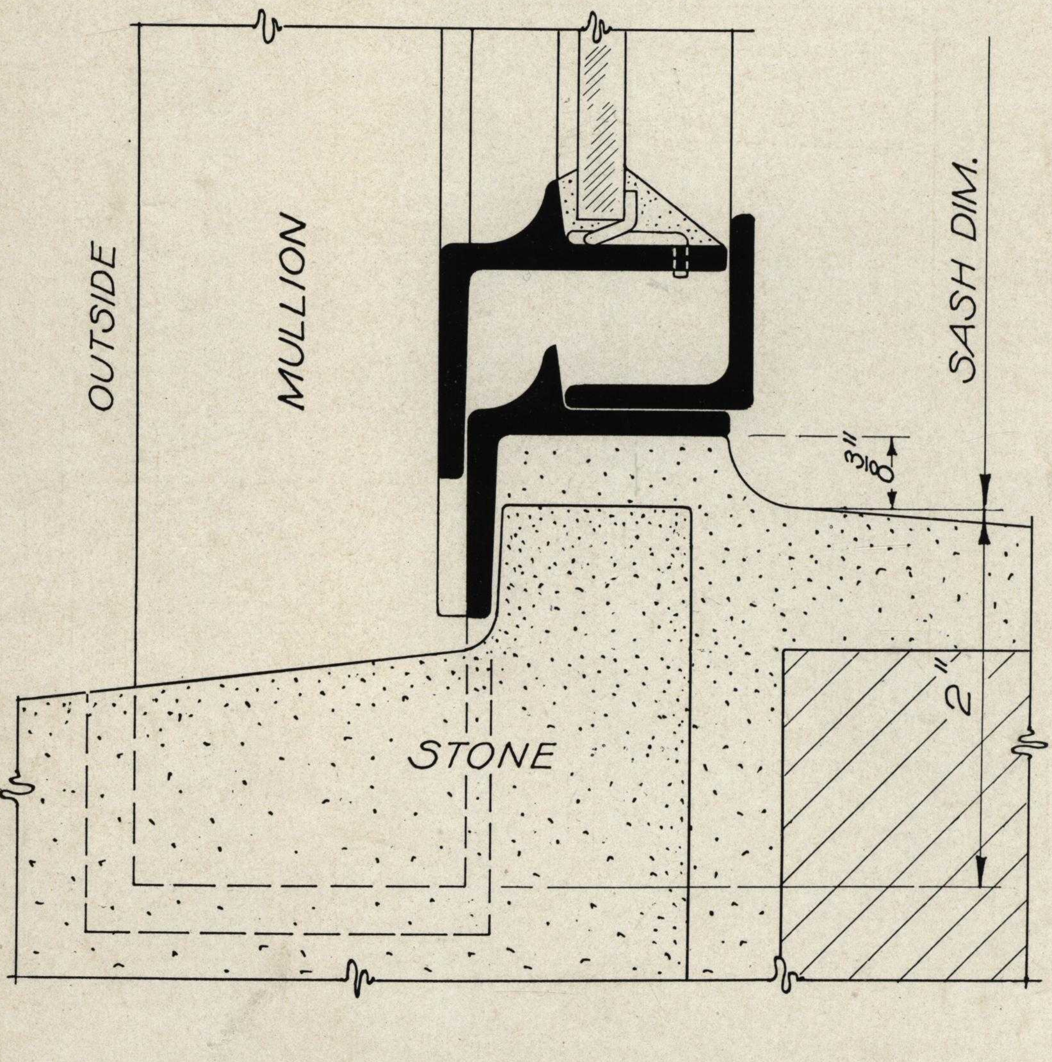
NOTE—*Mullion stems may either be turned in or out with stone, concrete, or brick construction. Preparation must be made in sill to anchor leg of mullion. Also refer to sketch showing prepared openings.*

DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Sill Detail No. 3-A

Installation in concrete, showing prepared slot for mullion.



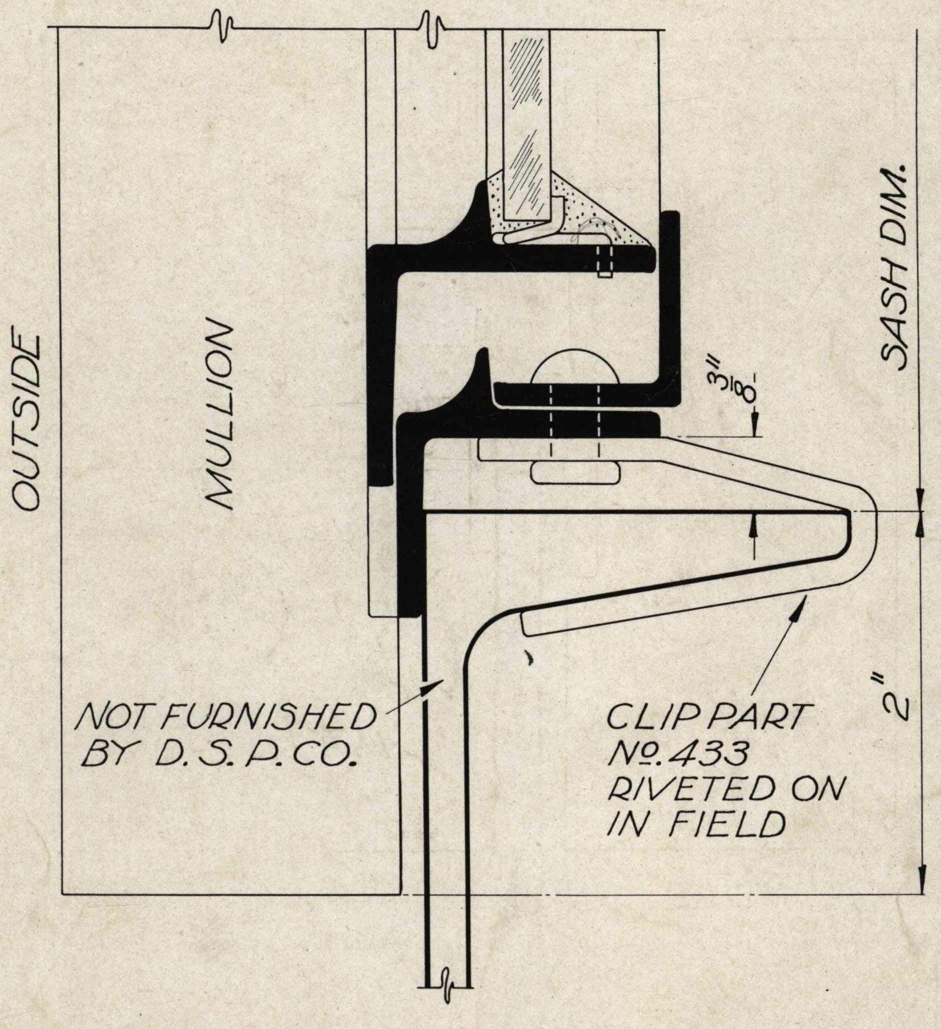
NOTE—*Mullion stems may be turned in or out with stone, concrete, or brick construction. Preparation must be made in sill to anchor leg of mullion. Refer to sketch showing prepared openings.*

DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Sill Detail No. 6-A

Installation in brick with stone sill, showing prepared slot for mullion.


OUTSIDE
MULLION
SASH DIM.
3"/8
2"
NOT FURNISHED BY D.S.P.CO.
CLIP PART No. 433 RIVETED ON IN FIELD

NOTE—Stem of standard mullions must be turned out, as shown, with steel sill construction, to avoid interference of the mullion stem with the structural member.

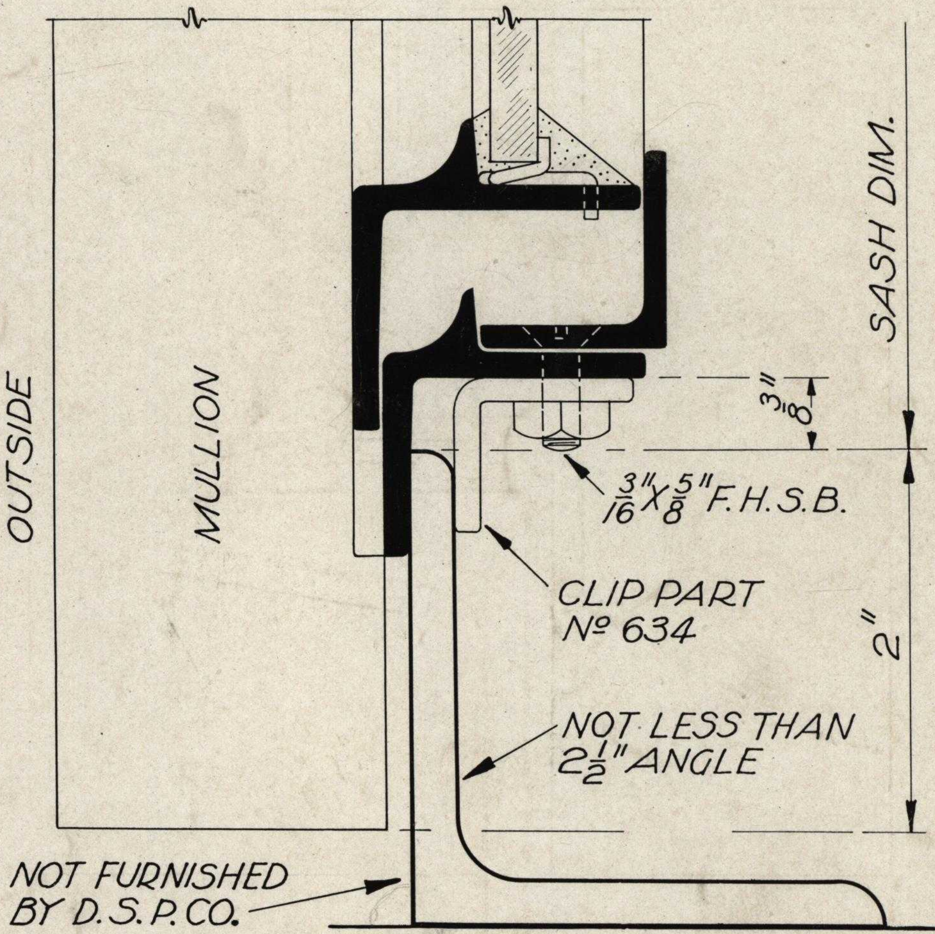
If, for any reason, mullion stem must be turned in, leg of mullion must have special cutoff at sill to clear steel work.

DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Sill Detail No. 12-A

Installation, showing attachment of sash to steel channel, angles, etc.



NOTE—*Stem of standard mullions must be turned out, as shown, with steel sill construction, to avoid interference of mullion stem with structural member.*

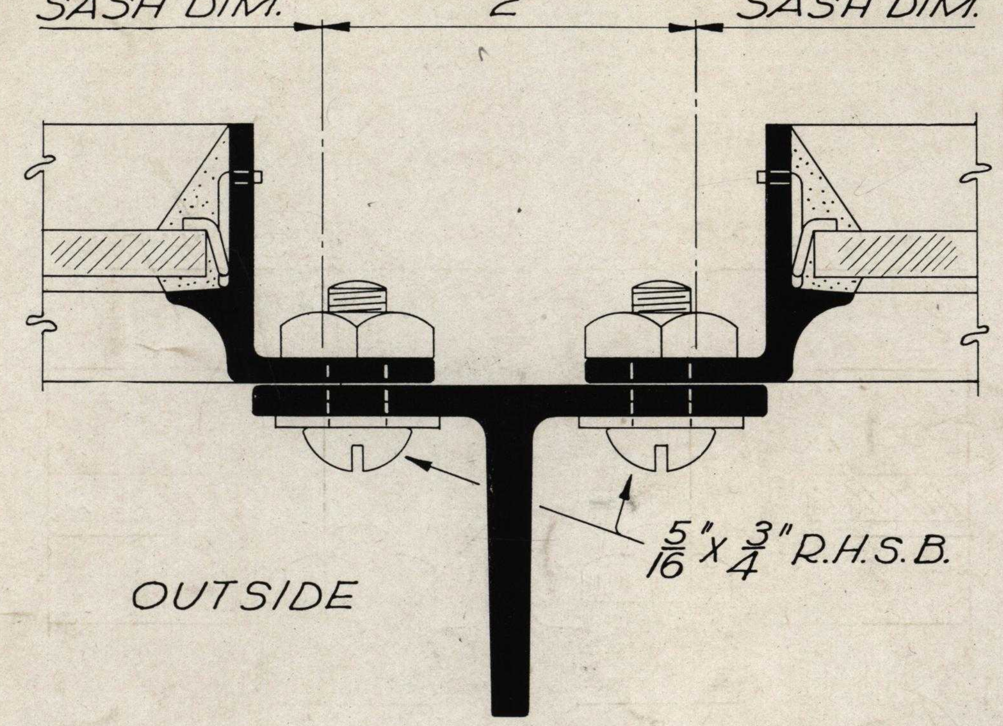
If, for any reason, mullion stem must be turned in, leg of mullion must have special cutoff at sill to clear steel work.

DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

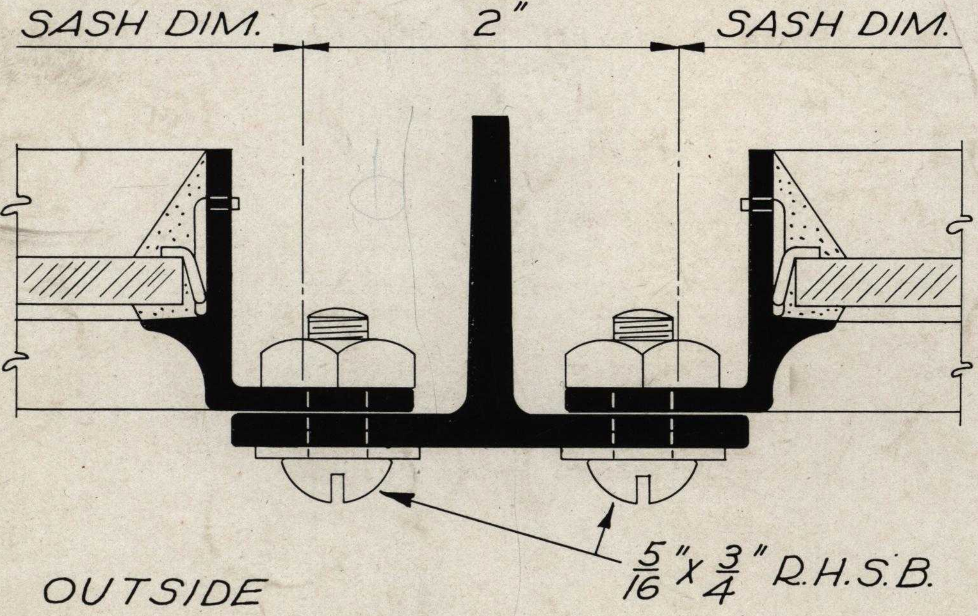
Sill Detail No. 12-B

Standard installation with steel angle, showing use of attachment, Clip No. 634.



Detail No. 37

34
42
46



40'2

Detail No. 37-A

Limiting Height of Single Mullions

Type	Height
X-9	12′ 4½″
Y-8	12′ 3⅞″
Z-7	11′ 11½″
P-6	11′ 3⅛″

NOTE—For heights greater than those listed in the table, double T-bar mullions should be used. See opposite side of this sheet.

Double T-bar mullions should be used for heights greater than 10′ 0″ when sash runs in continuous bands.

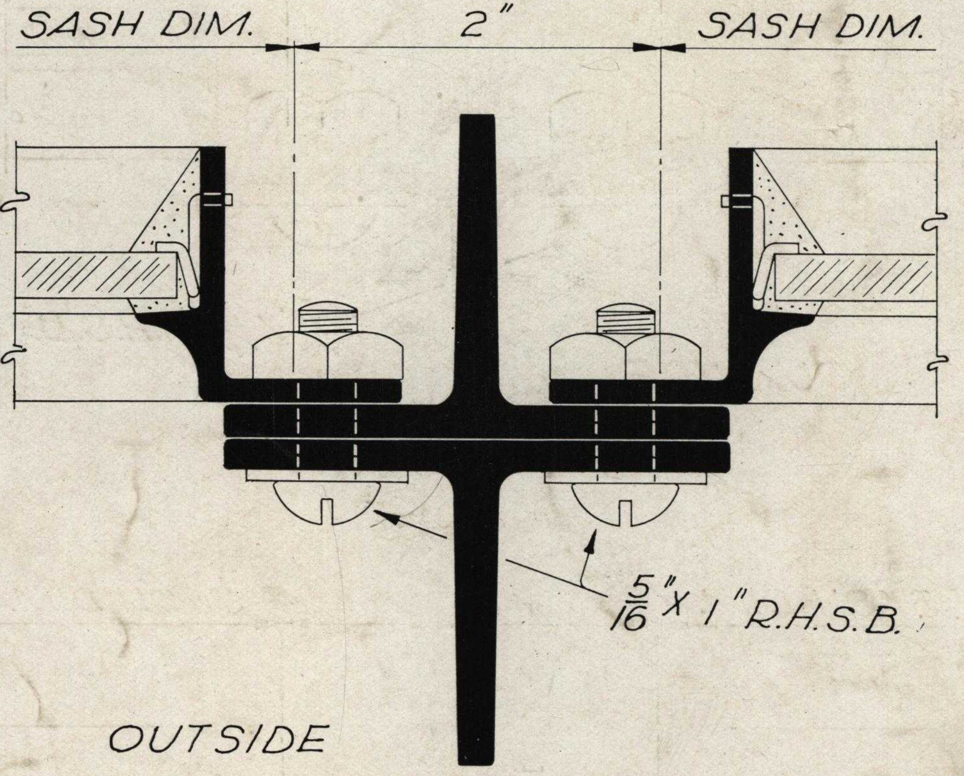
DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Mullion Details Nos. 37, 37-A

Attachment of standard T-bar mullion to sash units. No. 37 shows stem turned out. No. 37-A shows stem turned in.

Revised 6-21-20



NOTE—For heights greater than those listed in the table, double T-bar mullions should be used up to 15′ 0″.

When the sash between the mullions exceeds a height of 10′ 0″ and an area of 60 square feet for ventilated and 80 square feet for fixed sash, double T-bar mullions should be used as shown in detail No. 37-B.

Double T-bar mullions should be used for heights greater than 10′ 0″ when sash runs in continuous bands.

Limiting Height of Single Mullions

Type	Height
X-9	12′ 4½″
Y-8	12′ 3⅞″
Z-7	11′ 11½″
P-6	11′ 3⅛″

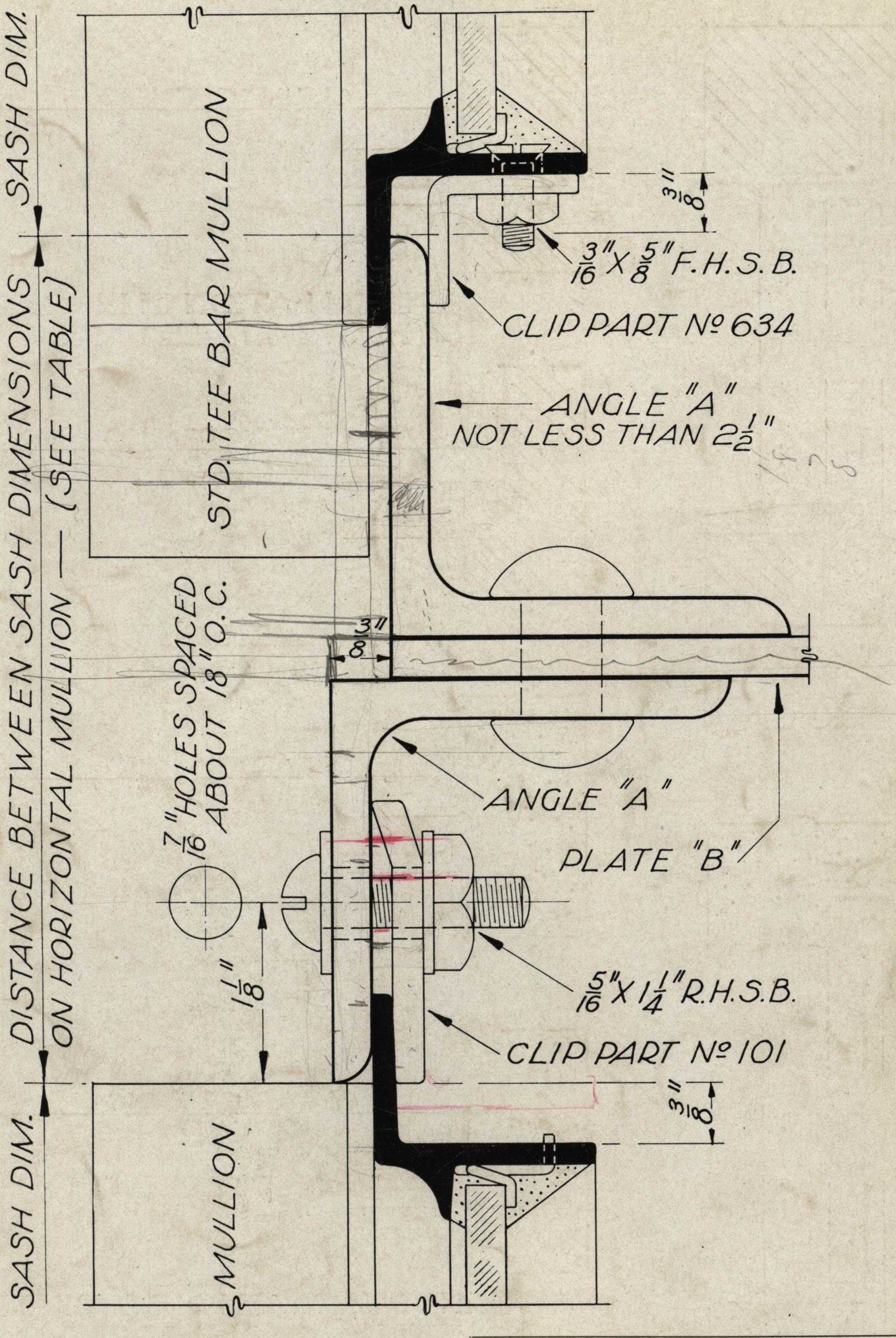
DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Mullion Detail No. 37-B

Method of attaching standard double T-bar mullion to the sash units.

Revised 6-21-20



NOTE—*When steel sills are detailed, standard mullions must be turned out as shown in details Nos. 12, 12-A and 12-B to avoid interference of mullion web with steel sill member.*

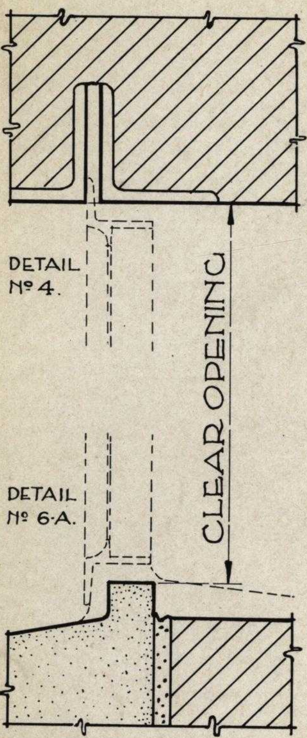
If, for any reason, mullion stem must be turned in, leg of mullion must have special cutoff at sill to clear steel work.

DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

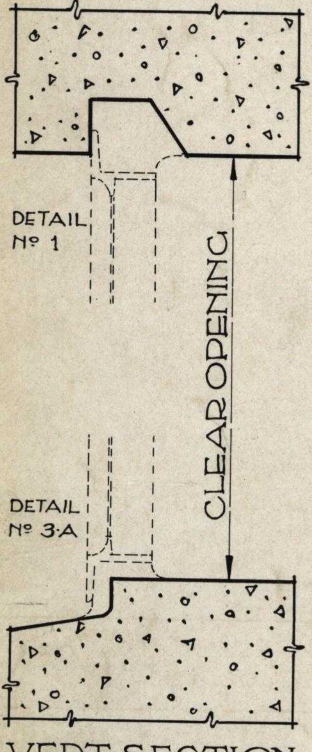
TITLE

Standard Horizontal Structural Steel Mullion, Detail No. 40

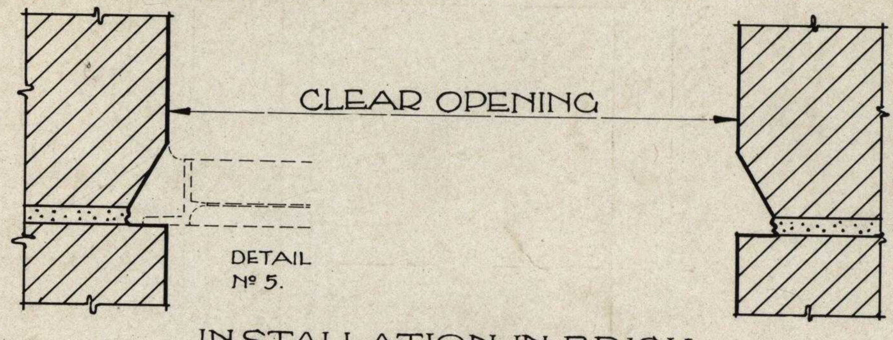
Under no circumstance will structural mullions be estimated or furnished by the Detroit Steel Products Co.



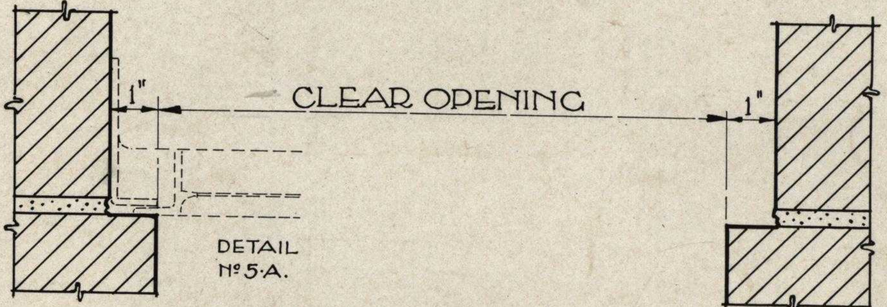
VERT. SECTION
INSTALLATION
IN BRICK



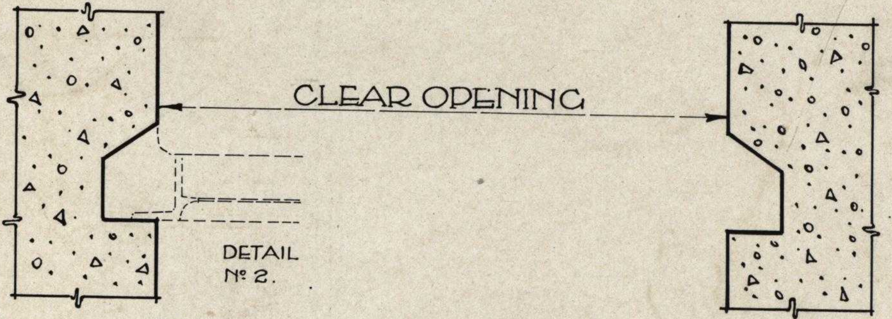
VERT. SECTION
INSTALLATION
IN CONCRETE



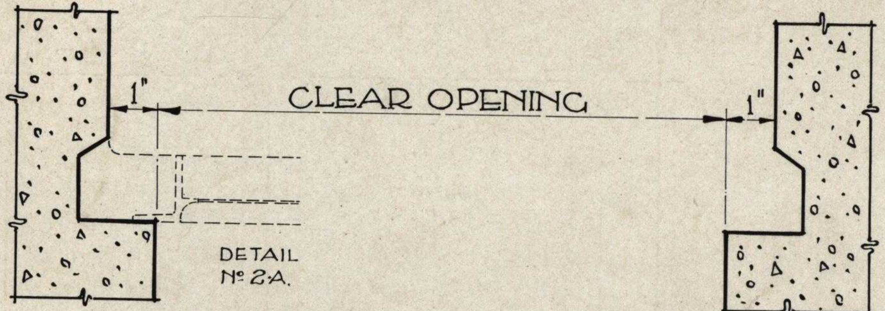
INSTALLATION IN BRICK
FOR MULTIPLE UNITS



INSTALLATION IN BRICK
FOR SINGLE UNITS



INSTALLATION IN CONCRETE
FOR MULTIPLE UNITS



INSTALLATION IN CONCRETE
FOR SINGLE UNITS

DETAILS SHOWING PREPARED OPENINGS FOR BRICK & CONCRETE

12″ x 18″ Glass	14″ x 20″ Glass	No. Lts. in Width of Opening	No. Units Wide	No. Lts. in Width of Units
19′ 1⅜″	22′ 1⅜″	18	3	6, 6, 6
19′ 4¼″	22′ 4¼″	18	4	4, 5, 5, 4
19′ 4¼″	22′ 4¼″	18	4	3, 6, 6, 3
20′ 7½″	23′ 9½″	19	5	5, 3, 3, 3, 5
21′ 5″	24′ 9″	20	4	5, 5, 5, 5
21′ 5″	24′ 9″	20	4	4, 6, 6, 4
21′ 7⅞″	24′ 11⅞″	20	5	4, 4, 4, 4, 4
21′ 7⅞″	24′ 11⅞″	20	5	3, 4, 6, 4, 3
22′ 8¼″	26′ 2¼″	21	5	4, 4, 5, 4, 4
22′ 8¼″	26′ 2¼″	21	5	3, 5, 5, 5, 3
22′ 8¼″	26′ 2¼″	21	5	3, 6, 3, 6, 3
23′ 5¾″	27′ 1¾″	22	4	5, 6, 6, 5
23′ 8⅝″	27′ 4⅝″	22	5	4, 4, 6, 4, 4
23′ 8⅝″	27′ 4⅝″	22	5	4, 5, 4, 5, 4
23′ 8⅝″	27′ 4⅝″	22	5	3, 5, 6, 5, 3
23′ 11½″	27′ 7½″	22	6	3, 4, 4, 4, 4, 3
23′ 11½″	27′ 7½″	22	6	3, 3, 5, 5, 3, 3
24′ 9″	28′ 7″	23	5	4, 5, 5, 5, 4
24′ 9″	28′ 7″	23	5	3, 6, 5, 6, 3
25′ 6½″	29′ 6½″	24	4	6, 6, 6, 6
25′ 9⅜″	29′ 9⅜″	24	5	3, 6, 6, 6, 3
25′ 9⅜″	29′ 9⅜″	24	5	4, 5, 6, 5, 4
26′ 0¼″	30′ 0¼″	24	6	4, 4, 4, 4, 4, 4
26′ 0¼″	30′ 0¼″	24	6	3, 4, 5, 5, 4, 3
26′ 9¾″	30′ 11¾″	25	5	5, 5, 5, 5, 5
27′ 10⅛″	32′ 2⅛″	26	5	5, 5, 6, 5, 5
28′ 1″	32′ 5″	26	6	4, 4, 5, 5, 4, 4
28′ 1″	32′ 5″	26	6	3, 5, 5, 5, 5, 3
28′ 1″	32′ 5″	26	6	3, 4, 6, 6, 4, 3
28′ 10½″	33′ 4½″	27	5	5, 6, 5, 6, 5
29′ 10⅞″	34′ 6⅞″	28	5	5, 6, 6, 6, 5
30′ 1¾″	34′ 9¾″	28	6	4, 5, 5, 5, 5, 4
30′ 1¾″	34′ 9¾″	28	6	3, 5, 6, 6, 5, 3
30′ 11¼″	35′ 9¼″	29	5	6, 6, 5, 6, 6
31′ 11⅝″	36′ 11⅝″	30	5	6, 6, 6, 6, 6
32′ 2½″	37′ 2½″	30	6	5, 5, 5, 5, 5, 5

How to Use the Table

Suppose you have a window opening seven feet high by approximately 18 feet 6 inches wide, to be filled with sash. You want to know the number of units needed, their height, width and the number of mullions necessary.

You would, of course, prefer to use 14″ x 20″ glass, because the bigger the glass size, the less the cost of the sash per square foot.

You refer, first, to your height dimension table and look down the column headed "14″ x 20″ Glass." There you find a height of 6′ 10⅜″, which is probably close enough to seven feet to serve your purpose. On a parallel line, in the next column to the right, you find the figure 4, indicating that a sash 6′ 10⅜″ high will be four lights high.

You next come to the width dimension and you continue in the 14″ x 20″ Glass column as before. You readily find a width dimension of 18′ 6¼″, and opposite this figure, in the column at the right, you find the number 15. This means that the bay of sash, when complete, will be 15 lights wide. In the next column to the right, the figure 3 indicates that you will need three units of sash and therefore two mullions to join them together. The third column at the right gives the figures 5, 5, 5, which indicates that each of the units will be five panes wide. If desirable, the combination just below, 6, 3, 6, can be used. To fill your opening, therefore, you will need three units of sash, glass size 14″ x 20″, each sash four lights high by five lights wide. You will need, also, two mullions, but 18′ 6¼″ dimension includes the mullions.

In using this table, it is necessary to pick your height dimension and your width dimension from the same column; that is, combine "Y" heights with "Y" widths and "Z" heights with "Z" widths.

Try also to use the same glass size throughout your entire layout. The use of different glass sizes in different bays results in complicated erection and glazing.

NOTE—Other portion of table on opposite side of this sheet.

DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Symmetrical Combinations of Standard Sash

Read directions before using the table.

Revised 6-21-20

Height Dimensions of Standard Sash

12″ x 18″ Glass	14″ x 20″ Glass	No. Lts. in Height of Opening	No. Units High	No. Lts. in Height of Units
3′ 1⅝″	3′ 5⅝″	2	1	2
4′ 8″	5′ 2″	3	1	3
6′ 2⅜″	6′ 10⅜″	4	1	4
7′ 8¾″	8′ 6¾″	5	1	5
9′ 3⅛″	10′ 3⅛″	6	1	6
10′ 9½″	11′ 11½″	7	1	7

Width Dimensions of Standard Sash

12″ x 18″ Glass	14″ x 20″ Glass	No. Lts. in Width of Opening	No. Units Wide	No. Lts. in Width of Units
3′ 2″	3′ 8″	3	1	3
4′ 2⅜″	4′ 10⅜″	4	1	4
5′ 2¾″	6′ 0¾″	5	1	5
6′ 3⅛″	7′ 3⅛″	6	1	6
6′ 6″	7′ 6″	6	2	3, 3
8′ 6¾″	9′ 10¾″	8	2	4, 4
9′ 10″	11′ 4″	9	3	3, 3, 3
10′ 7½″	12′ 3½″	10	2	5, 5
10′ 10⅜″	12′ 6⅜″	10	3	3, 4, 3
11′ 10¾″	13′ 8¾″	11	3	3, 5, 3
11′ 10¾″	13′ 8¾″	11	3	4, 3, 4
12′ 8¼″	14′ 8¼″	12	2	6, 6
12′ 11⅛″	14′ 11⅛″	12	3	4, 4, 4
12′ 11⅛″	14′ 11⅛″	12	3	3, 6, 3
13′ 11½″	16′ 1½″	13	3	4, 5, 4
13′ 11½″	16′ 1½″	13	3	5, 3, 5
14′ 11⅞″	17′ 3⅞″	14	3	5, 4, 5
14′ 11⅞″	17′ 3⅞″	14	3	4, 6, 4
15′ 2¾″	17′ 6¾″	14	4	3, 4, 4, 3
16′ 0¼″	18′ 6¼″	15	3	5, 5, 5
16′ 0¼″	18′ 6¼″	15	3	6, 3, 6
17′ 0⅝″	19′ 8⅝″	16	3	5, 6, 5
17′ 0⅝″	19′ 8⅝″	16	3	6, 4, 6
17′ 3½″	19′ 11½″	16	4	4, 4, 4, 4
18′ 1″	20′ 11″	17	3	6, 5, 6

(Continued on opposite side of this sheet)

How to Use the Table

Suppose you have a window opening seven feet high by approximately 18 feet 6 inches wide, to be filled with sash. You want to know the number of units needed, their height, width and the number of mullions necessary.

You would, of course, prefer to use 14″ x 20″ glass, because the bigger the glass size, the less the cost of the sash per square foot.

You refer, first, to your height dimension table and look down the column headed "14″ x 20″ Glass." There you find a height of 6′ 10⅜″, which is probably close enough to seven feet to serve your purpose. On a parallel line, in the next column to the right, you find the figure 4, indicating that a sash 6′ 10⅜″ high will be four lights high.

You next come to the width dimension and you continue in the 14″ x 20″ Glass column as before. You readily find a width dimension of 18′ 6¼″, and opposite this figure, in the column at the right, you find the number 15. This means that the bay of sash, when complete, will be 15 lights wide. In the next column to the right, the figure 3 indicates that you will need three units of sash and therefore two mullions to join them together. The third column at the right gives the figures 5, 5, 5, which indicates that each of the units will be five panes wide. If desirable, the combination just below, 6, 3, 6, can be used. To fill your opening, therefore, you will need three units of sash, glass size 14″ x 20″, each sash four lights high by five lights wide. You will need, also, two mullions, but 18′ 6¼″ dimension includes the mullions.

In using this table, it is necessary to pick your height dimension and your width dimension from the same column; that is, combine "Y" heights with "Y" widths and "Z" heights with "Z" widths.

Try also to use the same glass size throughout your entire layout. The use of different glass sizes in different bays results in complicated erection and glazing.

DETROIT STEEL PRODUCTS COMPANY
DETROIT, MICHIGAN

TITLE

Symmetrical Combinations of Standard Sash

Read directions before using the table.

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